

A system and method are disclosed for controlling idle speed of an internal combustion engine. The system includes an engine speed sensor producing an engine speed signal indicative of a rotational engine speed of an internal combustion engine, and a control circuit. The control circuit controls the rotational speed of the engine between an idle speed reference and a maximum speed reference. The control circuit also modifies the idle speed reference as a function of the engine speed. Additionally, the control circuit may determine an engine acceleration rate as a function of the engine speed, and modify the idle speed reference as a function of the engine speed and the engine acceleration rate.